



US 20180352383A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2018/0352383 A1**
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(2013.01); **H04W 4/02** (2013.01); **G01C**
21/3617 (2013.01)(57) **ABSTRACT**

In one embodiment, a method includes determining a current location of a user based on location data received from a client device; and calculating a transition probability of the user transitioning, within a predetermined time window, from the current location to each of a number of candidate geographic locations. The calculating of the transition probability is based at least in part on previously logged location data associated with a number of users who were at the current location. The method also includes determining metadata associated with the user; and calculating an offline probability associated with each of the number of candidate geographic locations using a computer model and the metadata associated with the user. The computer model is generated using machine learning and metadata associated with users who were at the respective candidate geographic location.

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